

REMARKS

In the Office Action, the Examiner noted that claim 29 is pending in the application and that claim 29 is rejected. By this response, claim 29 has been amended, and new claims 30-48 have been added. Thus, claims 29-48 are pending in the application.

Rejections Under 35 U.S.C., §103

Claim 29 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Michelson* (U.S. Patent No. 5,015,247). The Examiner asserts that *Michelson* teaches all the limitations of claim 29, but fails to specify the term "tabs", or the functional language of entrapping bone projections from each of a pair of adjacent bone bodies. The Examiner asserts that it would have been obvious to one having ordinary skill in the art at the time the invention was made that (a) once the implant of *Michelson* is implanted, that the adjacent vertebra bones would and are capable of entrapping bone debris, especially loose material made from tools, and (b) it is also obvious that the threads (53) could be called "tabs" and are deemed a design consideration because they serve the same purpose which is to retain the implant between the adjacent bone bodies. Applicant disagrees as argued below and further in light of the amendment to independent claim 29, as well as the addition of new claims 30-48.

In order for the Examiner to prove a case of *prima facie* obviousness, the Examiner must provide: 1) one or more references; 2) that were available to the inventor and; 3) that teach; 4) a suggestion to combine or modify the references; 5) the combination or

modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art. Here the Examiner has failed to teach or suggest the limitations of amended claim 29.

More particularly, the Examiner has failed to show a teaching or suggestion for "tabs" which are now recited as lacking any slope, pitch or inclination angle between the tabs and a surrounding surface taken in a direction that is transverse to a longitudinal axis of the tubular implant. Such limitations refer to a structural distinction between a tab and a thread segment (of *Michelson*) which has a slope, pitch or inclination angle that allows the thread segment to threadingly engage with one or more bone bodies as the implant is rotated into placement between bone bodies. In contrast, Applicant's invention merely relies upon tabs that have no such concomitant slope, pitch or inclination angle relative to the circumferential outer surface about the tubular implant. Instead, the tabs are provided with a sloped front face and a sharp rear edge (see claims 30, 31, 36 and 45) that serve to facilitate insertion of an implant between prepared bone beds while preventing dislodgment therefrom (see Col. 11, lines 48-58).

Ramp front faces of the tabs serve to facilitate insertion of an implant between prepared bone beds, as a driver 122 is used to axially insert the implant into a prepared kerf within the bone bodies by hitting a driver end 154 with a hammer so as to axially insert implant 10 between the bone bodies (see Col. 13, lines 39-43). Tabs 116 (see Figs. 12-17) do not have a pitch or inclination angle relative to an outer peripheral surface of the implant that will facilitate rotational and threading engagement of the implant with the

adjacent bone bodies. In contrast, the embodiment of implant 210 depicted in Figures 26 and 27 shows an alternative construction that has at least one helical thread 291. Such implant 210 is in sharp contrast with implant 10 in that the thread 291 has a pitch or inclination angle that makes the thread engage the implant as it is rotated into position between a pair of bone bodies. However, implant 10 of Figures 10-18 is not configured to be threaded into engagement, but is configured for axial insertion as tabs 116 are not configured to function as a thread. Hence, implant 10 does not have a cylindrical outer surface that is configured for rotational (or helical) and threaded insertion into a pair of kerfs and in between a pair of bone bodies being joined together.

The threads of *Michelson* all have a pitch or inclination angle relative to the outer surface of the implant which requires that the implant be rotatably threaded into engagement between a pair of vertebral bodies. Such a thread teaches away from the tab that is claimed herein in that the tab recited within the present claims functions differently than a thread segment (of *Michelson*) and the present implant cannot be driven into position by merely rotating the implant as the tabs have no pitch or inclination angle that would serve to drive the implant forward into threaded engagement between a pair of bone bodies. In contrast, the present invention requires the action of the insertion tool, or instrument 120, depicted in Figure 18 in cooperation with a driving device such as a hammer that facilitates axial insertion of the implant between bone bodies (see Col. 12, lines 54-67, and Col. 13, lines 39-51).

Secondly, amended claim 29 now has a limitation wherein the implant is "configured to entrap a living bone projection from each of a pair of adjacent bone bodies being joined together" (see Col. 7, lines 40-42, for support).

Accordingly, it is believed that the Examiner has not established a *prima facie* case of obviousness in light of the amended claim 29. Additionally, new claims 30-48 are believed to recite limitations that overcome the prior art of record.

Accordingly, claims 29-48 are believed to be non-obvious and allowable over the art of record. Applicant respectfully requests action to that end.

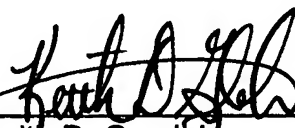
Withdrawal of this rejection is respectfully requested.

CONCLUSION

For all the reasons advanced above, Applicant respectfully submits that the application is in condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview before issuance of any such subsequent action.

Respectfully submitted,

Dated: 12/08/04

By: 
Keith D. Grzelak
Reg. No. 37,144